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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,446	09/11/2003	Paul David Metcalfe	WEAT/0024.C1	7816

7590 04/04/2005

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EXAMINER

TSAY, FRANK

ART UNIT PAPER NUMBER

3672

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,446

Applicant(s)

METCALFE ET AL.

Examiner

Frank S Tsay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☒ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,24-31,33-38,42,44 and 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,24,25,27,29-31,33-35,38,42,44 and 45 is/are rejected.
- 7) ☒ Claim(s) 26,28,36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 102***

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 21, 24, 25, 27, 29-31, 33-35, 38, 42 and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Cumming et al (US 6,070,671, filed 8/3/98).

The liner is met by liner 12, which is run into the bore shown in Figs 1 and 2 and positioned in overlapping relation with the casing 10A. The liner is plastically deformed resulting in a subsequent increase in inner and outer diameters of the line as well as the casing specifically shown in Fig. 2 and col. 3, lines 37-55. The claimed metal-to-metal seal and pressure tight seal between the liner and casing is clearly anticipated as the seal between the liner and the casing is being of interference fit in '671 reference (col. 3, lines 46+). The claimed plastic deformation and elastic deformation of the casing is anticipated by the fact that the permanent deformation of the casing shown in Fig. 2 as well as the

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interference fit between the liner and the casing can be resulted from either plastic deformation or elastic deformation of the casing. The process of cementing the liner in the wellbore is clearly anticipated in Figs 1 and 2 where the liner is expanded prior to cementing and cementing is completed after the expansion of the liner and casing. The steps of applying radial expansion force against the liner exceeding its yield strength while continuing to apply radial expansion force to cause elastic deformation of the adjacent casing portion, as well as the step of relaxing the surrounding casing to provide interference fit between the liner and overlapping portion of the casing is clearly anticipated by '671 reference, col. 3, lines 42-55, where interference fit between the liner and the casing is clearly taught.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cumming et al '671 in view of Prout (US 2,383,214).

Cumming et al teaches everything with the exception of the rolling expander tool. In this regard, Prout teaches the art of expanding a tubing or a casing using a rolling expander tool shown specifically in Fig. 1, having rollers 18 which are expandable relative to the downward movement of the tapered mandrel 23 so as

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to expand the tubing or the casing to its desired diameter (see Fig. 2), and page 2, col 1, lines 1-13. It would therefore have been obvious to one of the ordinary skill in the art to have substituted Cumming et al conical expansion mandrel with rolling expander of Prout to for the expansion of the liner and the casing since which involves only an simple design choice within the skill of the art taught in Prout's reference.

Allowable Subject Matter

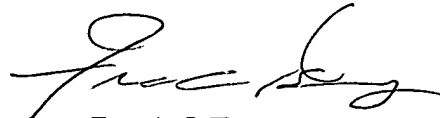
Claims 26, 28, 36 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank S Tsay whose telephone number is (703) 308-2170. The examiner can normally be reached on Monday thru Friday, 7:30am-5:00 pm, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on (703)308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Frank S Tsay
Primary Examiner
Art Unit 3672

3/27/05